EXHIBIT 5

Wapp Tech Limited Partnership et al. v. JPMorgan Chase Bank, N.A., No. 4:23-cv-1137 (E.D. Tex.)

EXHIBIT C-4c

Invalidity of U.S. Patent No. 9,971,678 Based on the Flash MX Professional 2004 System

As described in the following claim chart, claims 1–7, 9, 12, 13, 21 and 22 of U.S. Patent No. 9,971,678 (the '678 patent) are invalid because they are anticipated under 35 U.S.C. § 102 by Flash MX Professional 2004 and/or would have been obvious under 35 U.S.C. § 103 over Flash MX Professional 2004 and/or the knowledge of a person of ordinary skill in the art ("POSA").

The Flash MX Professional 2004 software product was publicly released by Macromedia, Inc., no later than September 10, 2003. Manuals and other publications describing Flash MX Professional 2004 were concurrently available. The i-mode HTML Simulator feature was concurrently available, and instructions for downloading and using the feature were concurrently available and provided with Flash MX Professional 2004. A software update for Flash MX Professional 2004, adding Flash Lite 1.1 functionality, was publicly released by Macromedia, Inc., no later than June 26, 2004. Manuals and other publications describing Flash Lite 1.1 were concurrently available. Under the EDTX Model Order Focusing Patent Claims and Prior Art to Reduce Costs, "associated references that describe that instrumentality shall count as one reference, as shall the closely related work of a single prior artist." (EDTX Model Order Focusing Patent Claims and Prior Art to Reduce Costs, at 1 n.1.) The following associated references all describe the Flash MX Professional 2004 instrumentality and, therefore, together with the software product itself collectively count as one reference ("Flash MX Professional 2004 system" or "Flash MX Professional 2004"):

- *Flash MX 2004 Using Flash*, copyright Macromedia, Inc., dated September 2003, provided with the software product and concurrently published at http://www.macromedia.com/support/documentation/en/flash/ ;
- *Flash MX 2004 Getting Started with Flash*, copyright Macromedia, Inc., dated September 2003, provided with the software product and concurrently published at http://www.macromedia.com/support/documentation/en/flash/ ;
- *Flash MX Professional 2004 Flash Lite Authoring Guidelines for the i-mode Service by NTT DoCoMo*, copyright Macromedia, Inc., dated March 2003, provided with the software product and concurrently published at http://www.macromedia.com/support/documentation/en/flash/ ;
- *Flash MX Professional 2004 Flash Lite User Guide*, copyright Macromedia, Inc., dated August 2003, provided with the software product and concurrently published at http://www.macromedia.com/support/documentation/en/flash/ ;
- Bill Perry, *New Features for Mobile and Devices Developers in Macromedia Flash MX Professional 2004* ("Perry"), published by Macromedia, Inc., no later than September 9, 2003, concurrently with and on the same website as the software product;
- Matthew David, Building Great Flash MX Games ("David"), copyright date 2003;
- *Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, copyright Macromedia, Inc., dated June 2004 and concurrently published at http://www.macromedia.com/support/documentation/en/flash/ .

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Because the Flash MX Professional 2004 software product with its Flash Lite 1.1 update was released no later than June 2004, the Flash MX Professional 2004 system qualifies as prior art at least under pre-AIA 35 U.S.C. §§ 102(a) and (b) based on Wapp's earliest claimed priority date of June 10, 2005 (the date of Provisional Application No. 60/689,101). As set forth in Defendant's ("JPMC's") accompanying invalidity contention cover pleading, the Flash MX Professional 2004 system is prior art under pre-AIA 35 U.S.C. §§ 102(a) and (b) if it is determined that this asserted patent is entitled to a priority date of June 9, 2006 (the filing date of U.S. Patent App. No. 7,813,910). The Flash MX Professional 2004 system additionally qualifies as prior art at least under pre-AIA 35 U.S.C. § 102(f). The named inventor of the asserted patent admitted possessing prior knowledge of Flash and related technologies, including Flash Lite 1.1, Flash MX, Flash MX Professional 2004, and Studio 8, from Macromedia, Inc., as demonstrated in at least the Provisional Application No. 60/689,101 and U.S. Patent App. No. 7,813,910 and associated prior art disclosures, and in prior deposition testimony. Wapp also admits that the named inventor of the asserted patent possessed prior knowledge of Flash technology and in particular that the purported invention was a purported improvement on Macromedia's Flash development environment, as demonstrated at least in Wapp's response on May 8, 2024, to JPMC's interrogatory number 8.

To the extent the Flash MX Professional 2004 system does not expressly or inherently disclose one or more of the limitations of the claims, such limitations would have been obvious in view of the teachings of the Flash MX Professional 2004 system in combination with the knowledge of a POSA and/or one or more of the references identified in JPMC's Invalidity Contentions.

JPMC notes that obviousness analysis involves an expansive and flexible approach that takes into account the background knowledge, creativity, and common sense of a POSA. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 421 (2007). Accordingly, JPMC reserves the right to supplement these statements of obviousness based on further discovery and developments in this case, such as the Court's claim construction.

The chart below provides representative examples of where each element of each claim is found in the referenced prior art. Citations are meant to be exemplary, not exhaustive, and JPMC reserves the right to identify and discuss additional portions of the referenced prior art in support of its contentions and/or to rebut arguments made by Wapp. Citations to figures, drawings, tables, and the like include reference to any accompanying or related text. All internal cross references are meant to incorporate the cross-referenced material as if fully set forth therein.

Wapp's Infringement Contentions have not established that JPMC infringes any valid claim. Thus, JPMC's statements below should not be treated as an admission, implication, or suggestion that JPMC agrees with Wapp regarding either the scope, construction, or interpretation of any of the claims, or the infringement theories advanced by Wapp in its Infringement Contentions, including whether any claim satisfies 35 U.S.C. §§ 101 or 112. In certain cases, JPMC specified non-limiting examples of where its application of the prior art is based on Wapp's apparent application of the claim limitation in the Infringement Contentions. These statements are not

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intended to suggest that JPMC agrees with Wapp's application of any claim term. The Court has not yet construed any disputed terms and, therefore, these invalidity contentions take into account all possible constructions. JPMC reserves the right to supplement these contentions after receiving the Court's claim construction or any Court ruling or change of position by Wapp on the priority dates to which Wapp is entitled.

Wapp has yet to identify in this case, any limitation of the claims that it contends is not anticipated and/or rendered obvious by the referenced documents, and/or knowledge of a POSA. JPMC therefore expressly reserves the right to respond to any such contention, including by identifying additional obviousness citations and/or combinations, if Wapp makes any such contentions.
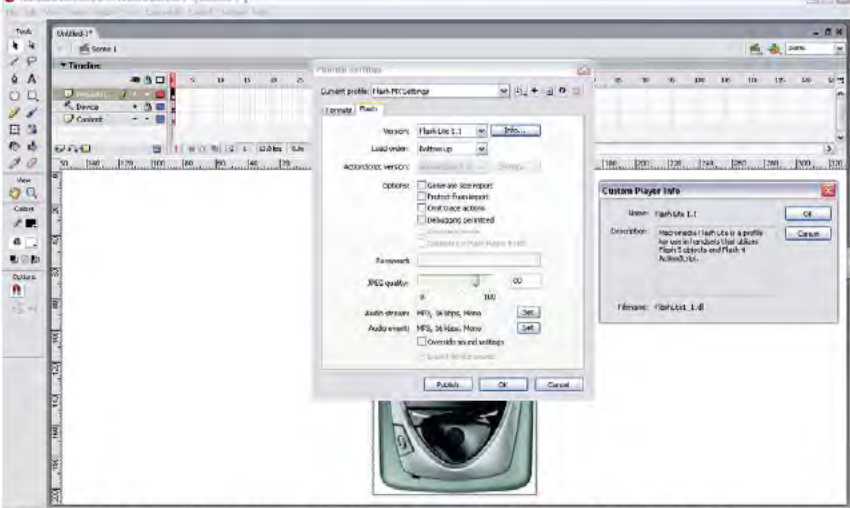
JPMC takes no position in these Invalidity Contentions on whether the preamble of each independent claim is limiting. To the extent each is limiting, the chart below provides examples of where each preamble limitation is found in this prior art.

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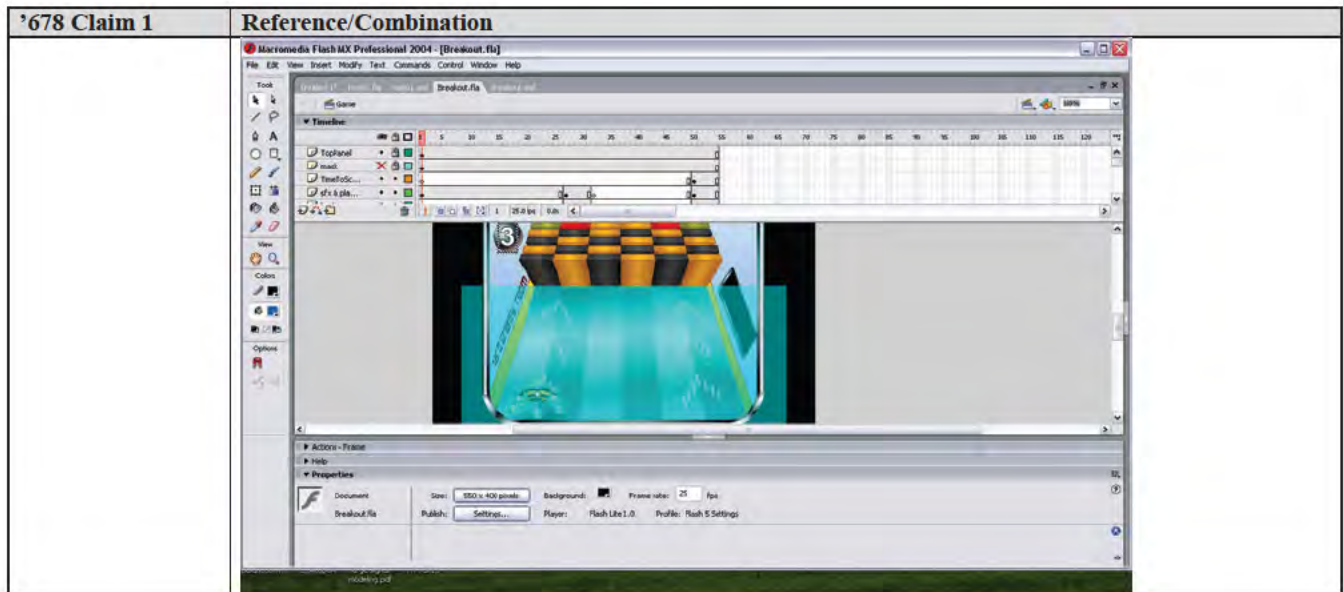
'678 patent

'678 Claim 1	Reference/Combination
1[a] A system for testing an application for a mobile device comprising:	The Flash MX Professional 2004 system discloses this limitation. For example, the following are screenshots from Flash MX Professional 2004. Flash MX Professional 2004, which consists of at least a stage for imagery and a grid for a timeline, enables a user to write code to develop and test visual applications such as animated games, using the Flash interface. Flash MX Professional 2004 also enables the editing and testing of ActionScript, a programming language.

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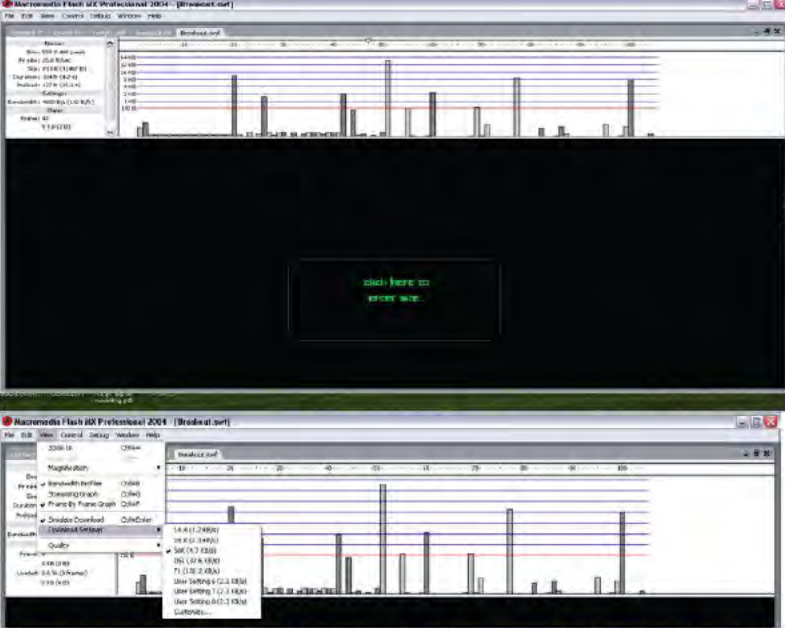
'678 Claim 1	Reference/Combination
	Flash MX Professional 2004 with Flash Lite 1.1 update and NTT DoCoMo i-mode simulator 7.2 feature. Flash MX Professional 2004 is a system for developing and testing an application for a mobile device, and it can publish Flash applications to "handsets" (see above window entitled "Custom Player Info").

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'678 Claim 1	Reference/Combination

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'678 Claim 1	Reference/Combination
	  Above is a screenshot of the Bandwidth Profiler testing the Breakout.fla and Breakout.swf Flash application from Flash MX 2004 Games by Nik Lever. For example, the Bandwidth Profiler in Flash MX Professional 2004 tests a Flash application for a mobile device. [*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback

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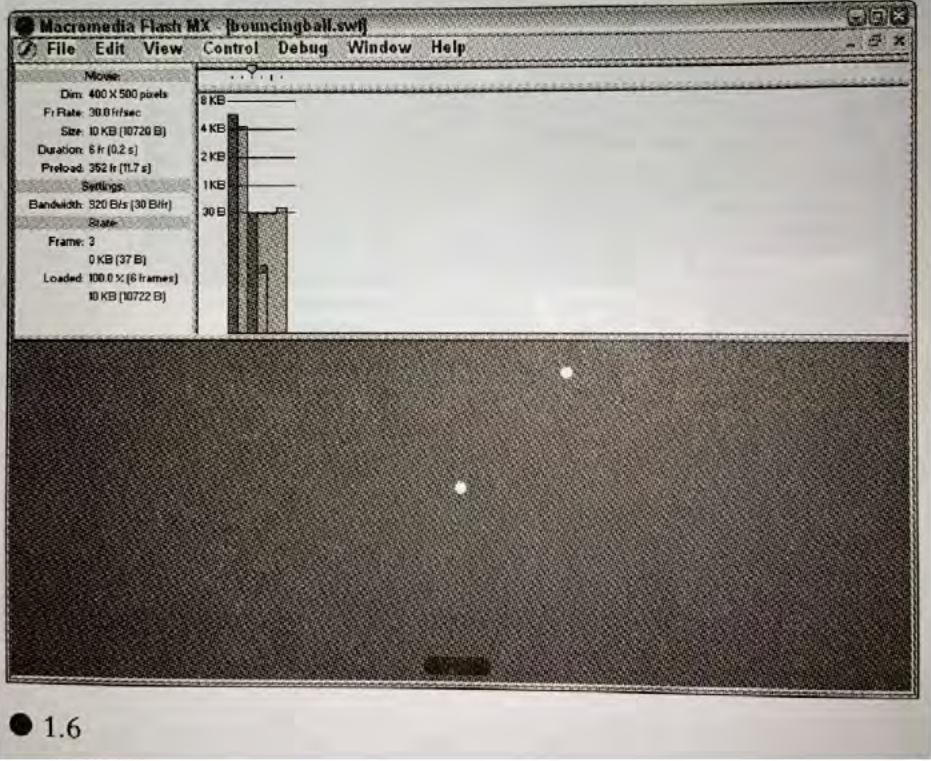| '678 Claim 1	Reference/Combination
	can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶] Select View > Download Settings, and select a download speed to determine the streaming rate

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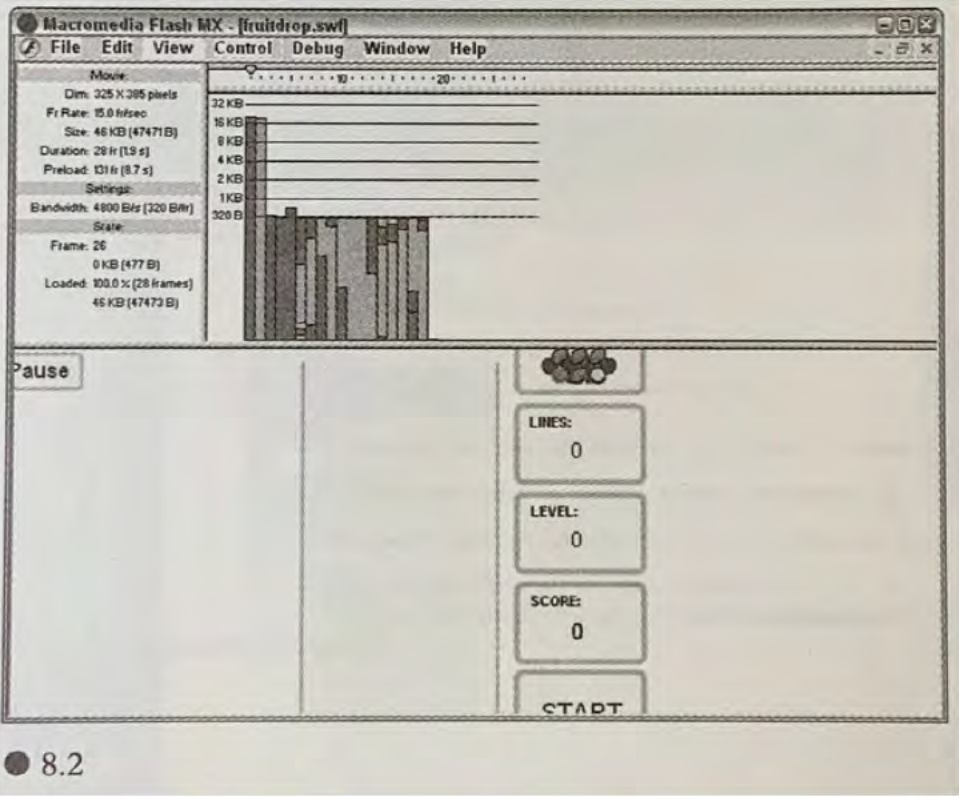| '678 Claim 1	Reference/Combination
	that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶]
	When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶]
	Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶]
	Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶]
	If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶]
	Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶]
	To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶]

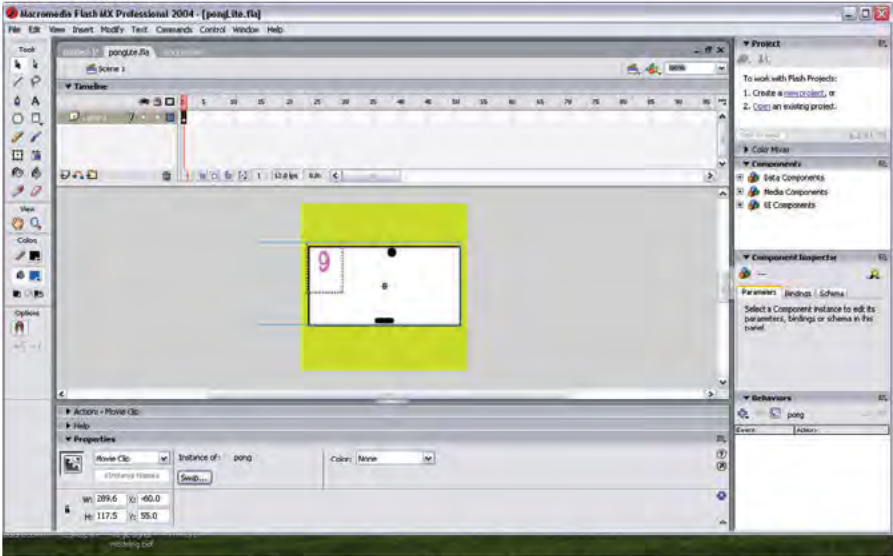*Wapp Tech Limited Partnership et al. v. JPMorgan Chase Bank, N.A.*, No. 4:23-cv-1137 (E.D. Tex.)

'678 Claim 1	Reference/Combination
	Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame.

[*Flash MX 2004 Using Flash*, p. 390]
In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal.

David discloses, via screenshots, the appearance of the Bandwidth Profiler.

[David, p. 7] |

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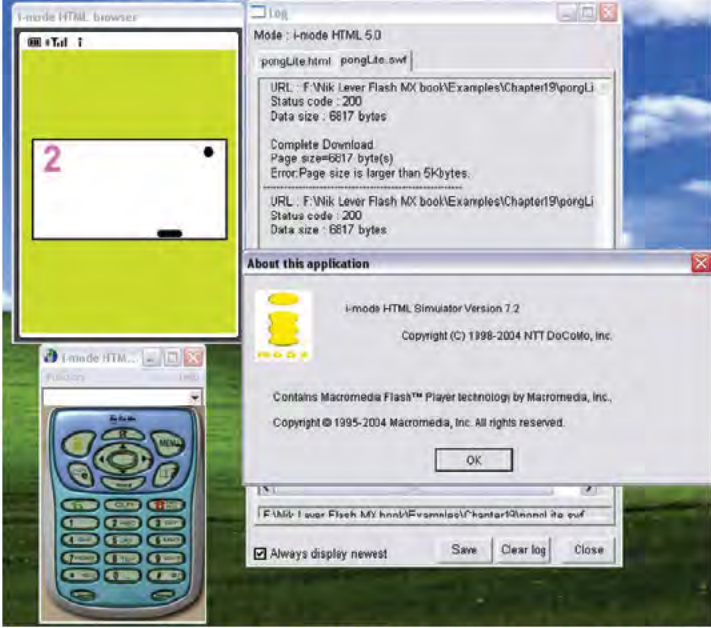| '678 Claim 1	Reference/Combination
	[David, p. 98]

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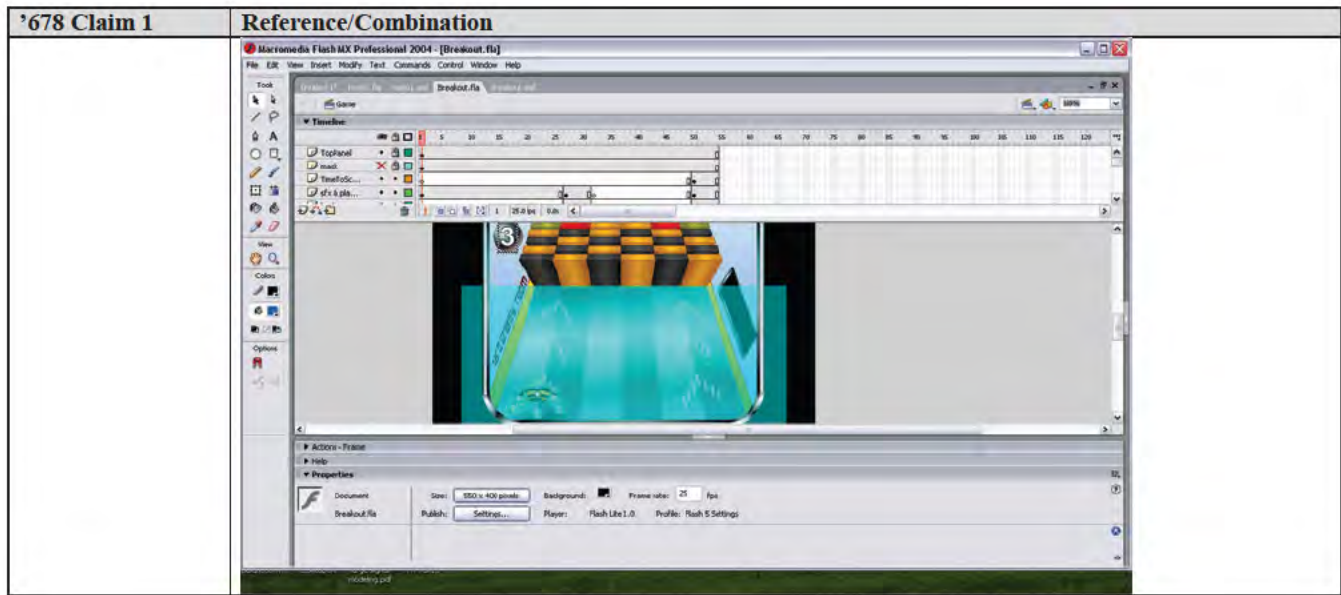| '678 Claim 1	Reference/Combination
	[David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

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'678 Claim 1	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 1	Reference/Combination
1[b][1] a software testing interface configured to simultaneously visually simulate, via one or more profile display windows.	The Flash MX Professional 2004 system discloses this limitation. For example, Flash MX Professional 2004 simultaneously visually simulates a Flash application via one or more windows. Flash MX Professional 2004 simultaneously visually simulates via the main editing window with the stage. Here, it is configured to emulate the pongLite.fla Flash application from Flash MX 2004 Games by Nik Lever.

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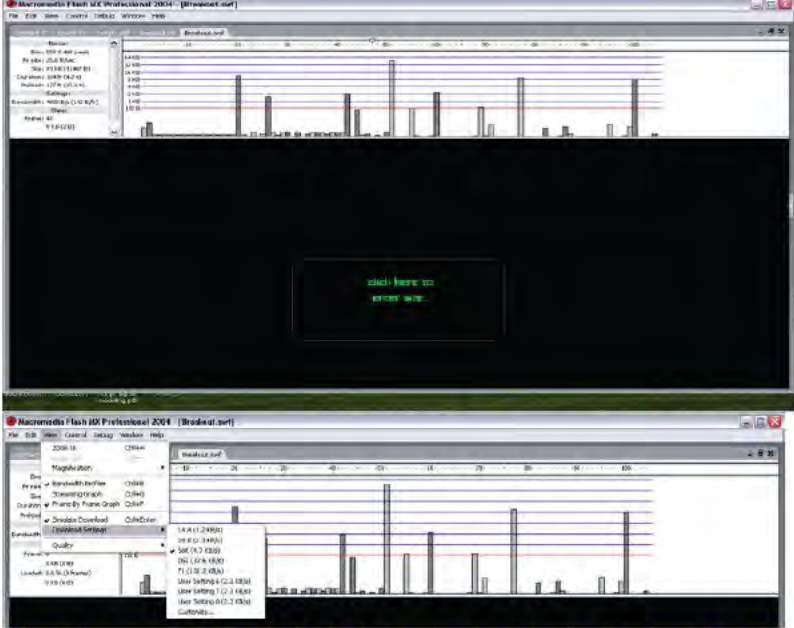| '678 Claim 1	Reference/Combination
	  Flash MX Professional 2004 simultaneously visually simulates via the Test Movie window with the Bandwidth Profiler. Here, it is configured to emulate the pongLite.swf Flash application from Flash MX 2004 Games by Nik Lever.

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'678 Claim 1	Reference/Combination

The NTT DoCoMo, Inc. i-mode HTML Simulator Version 7.2 loads and displays Flash Lite applications, such as pongLite.swf from Flash MX 2004 Games by Nik Lever, a game formatted for the screen of a mobile device (at left, with mobile device keypad below left). |

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'678 Claim 1	Reference/Combination

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'678 Claim 1	Reference/Combination
	  Above is a screenshot of Flash MX Professional 2004 using Breakout.fla and Breakout.swf from Flash MX 2004 Games by Nik Lever. For example, the Bandwidth Profiler in Flash MX Professional 2004 is a software testing interface for Flash applications, and the Bandwidth Profiler in Flash MX Professional 2004 simultaneously visually simulates operator network characteristics and displays a graph of the downloading performance of the Flash application.

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'678 Claim 1	Reference/Combination
	[*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶]

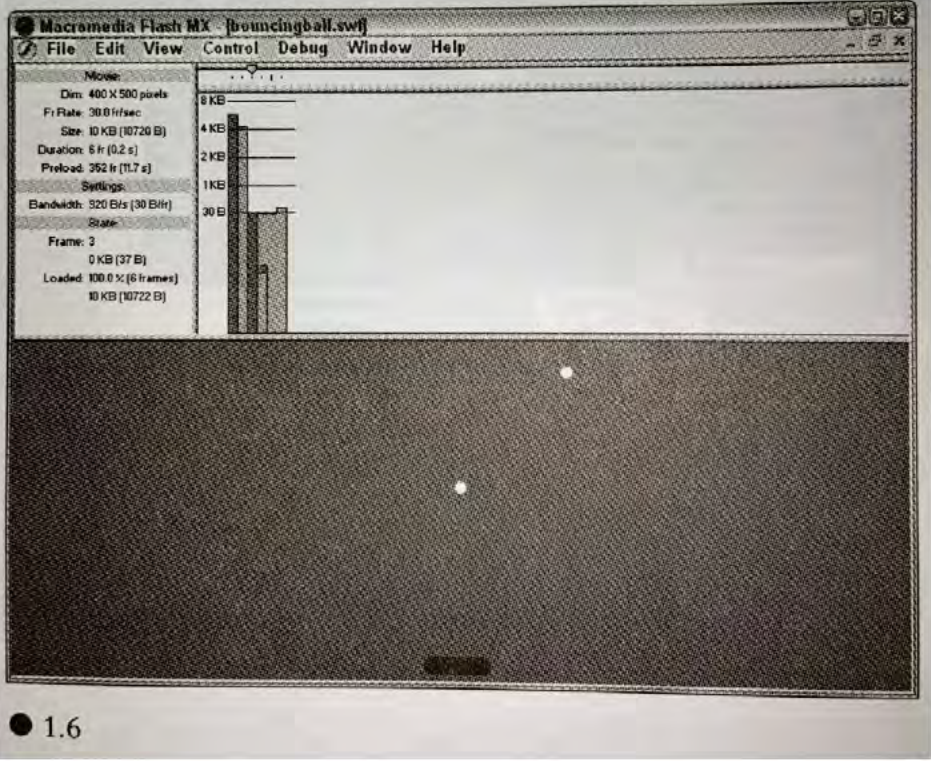*Wapp Tech Limited Partnership et al. v. JPMorgan Chase Bank, N.A.*, No. 4:23-cv-1137 (E.D. Tex.)

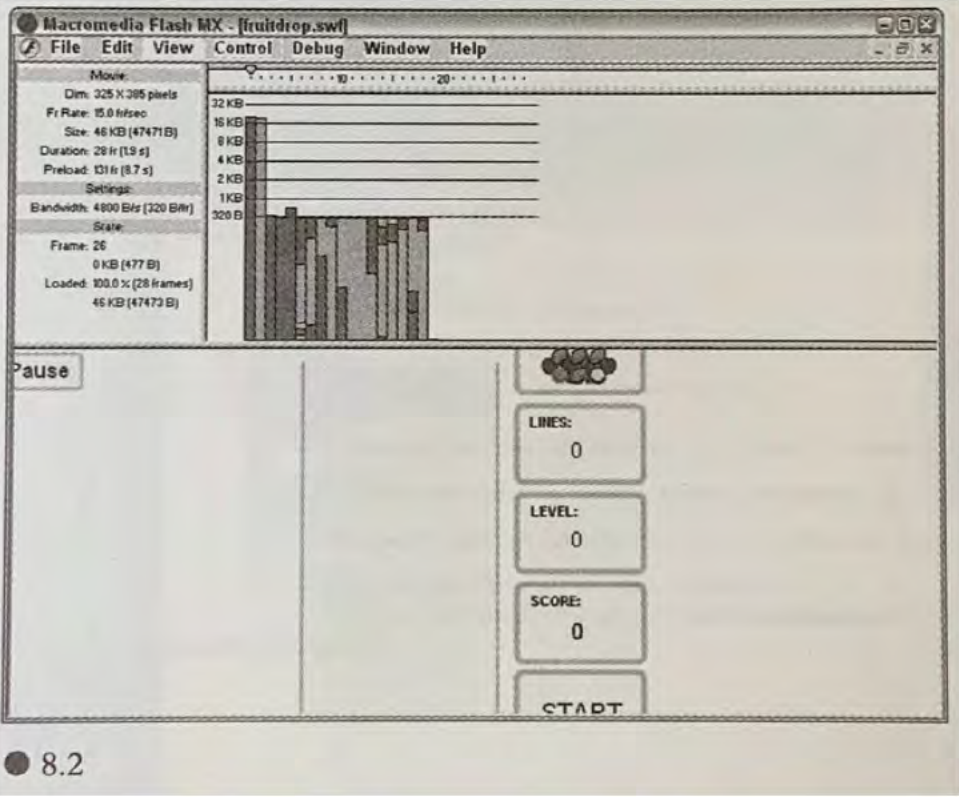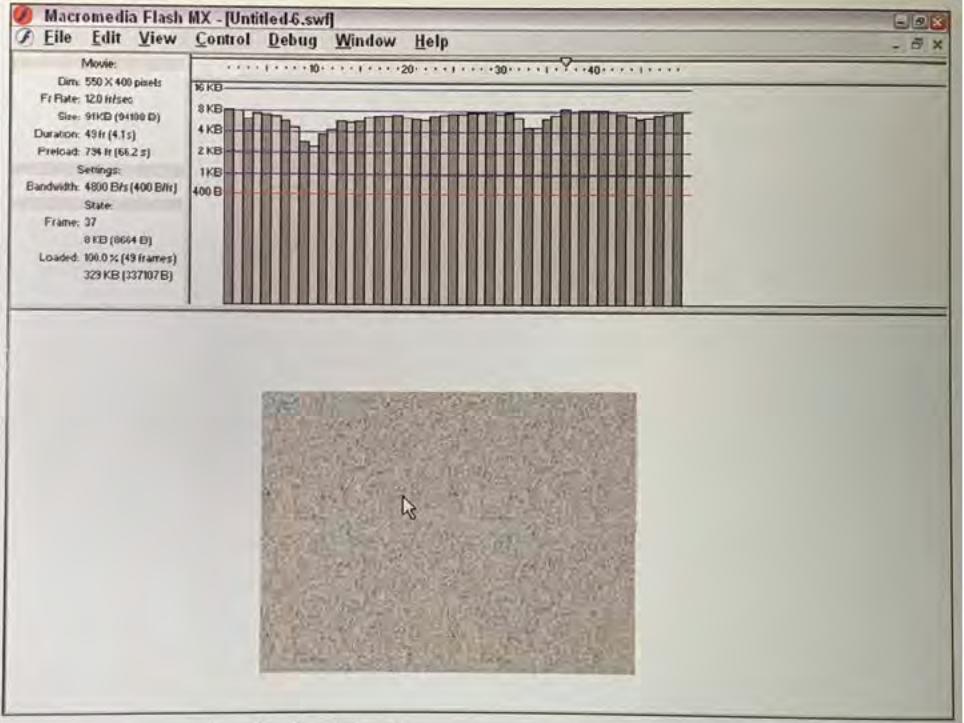| '678 Claim 1	Reference/Combination
	Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶]

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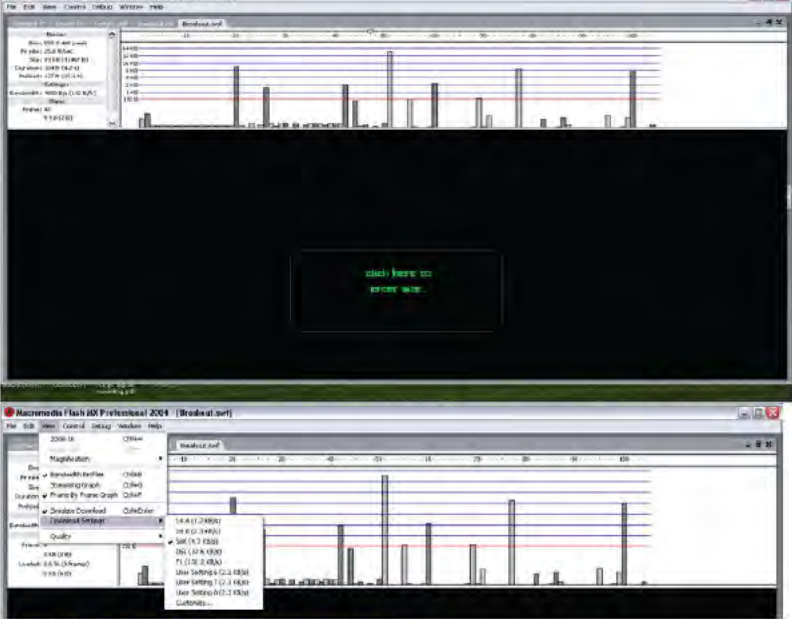| '678 Claim 1	Reference/Combination
	To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

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'678 Claim 1	Reference/Combination
	● 1.6 <mark>[David, p. 98]</mark>

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'678 Claim 1	Reference/Combination
	● 8.2
	[David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

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'678 Claim 1	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 1	Reference/Combination
1[b][2] a plurality of operator network characteristics including at least bandwidth availability indicative of performance of the mobile device when executing the application;	The Flash MX Professional 2004 system discloses this limitation. For example, the Bandwidth Profiler simulates operator network characteristics including bandwidth availability while the Flash application runs in the emulator/simulator. Bandwidth Profiler simulating a web connection and download at a speed of 28.8 kbps. Bandwidth Profiler simulating a web connection and download at a speed of 56 kbps. Screenshots above from the Flash MX Professional 2004 emulator show a plurality of operator network characteristics, including "Bandwidth" and the amount of time needed for "Preload" for snake.swf.

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'678 Claim 1	Reference/Combination
	Bandwidth Profiler simulation options. For example, the Bandwidth Profiler in Flash MX Professional 2004 simultaneously visually simulates a download, modem speed, a web connection (a network connection state), compression, streams, typical Internet performance (bandwidth availability), and additional data requests, operator network characteristics indicative of performance of the mobile device when executing the Flash application. [*Flash MX 2004 Using Flash*, pp. 38–39]

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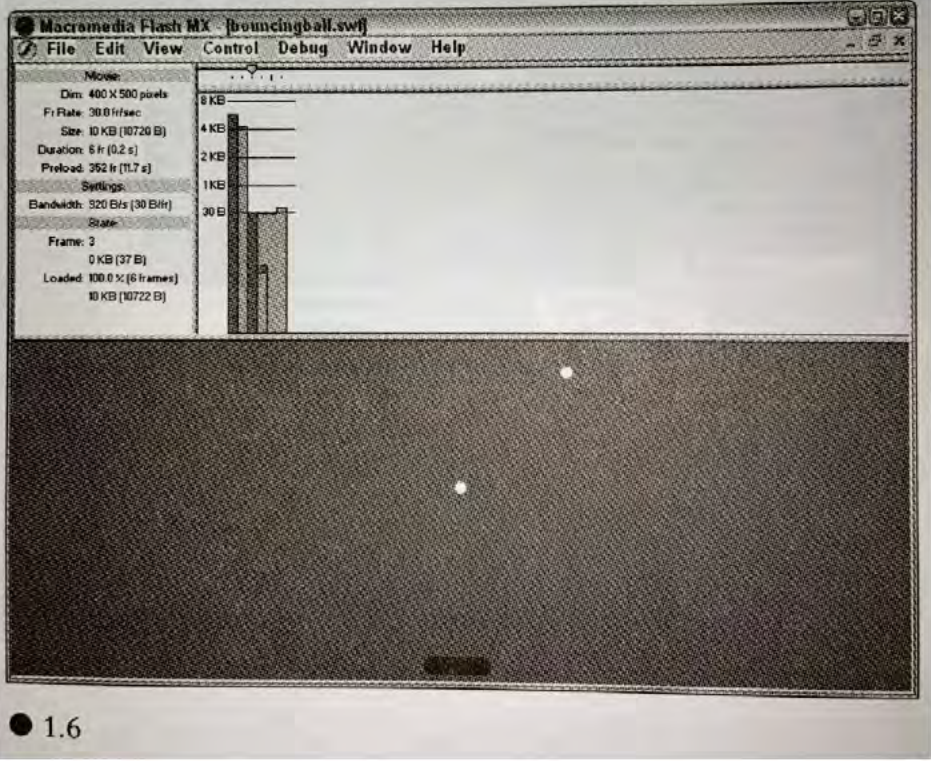| '678 Claim 1	Reference/Combination
	The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶] When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶] You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶] To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶] To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶]

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'678 Claim 1	Reference/Combination
	Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶] When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶] Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶]

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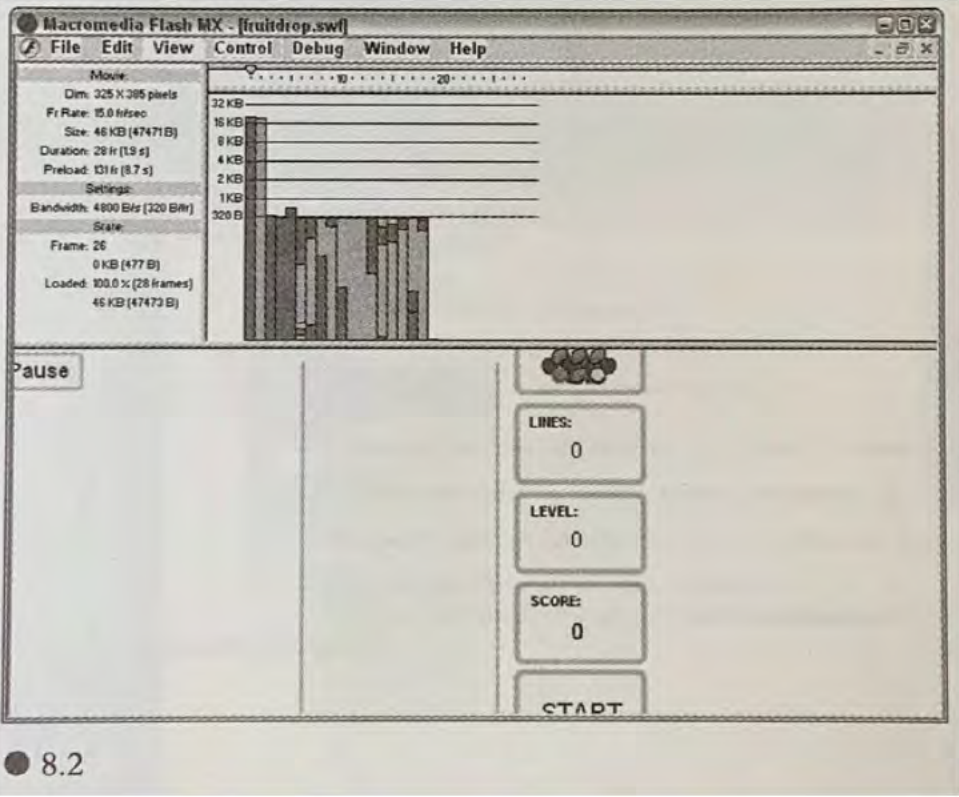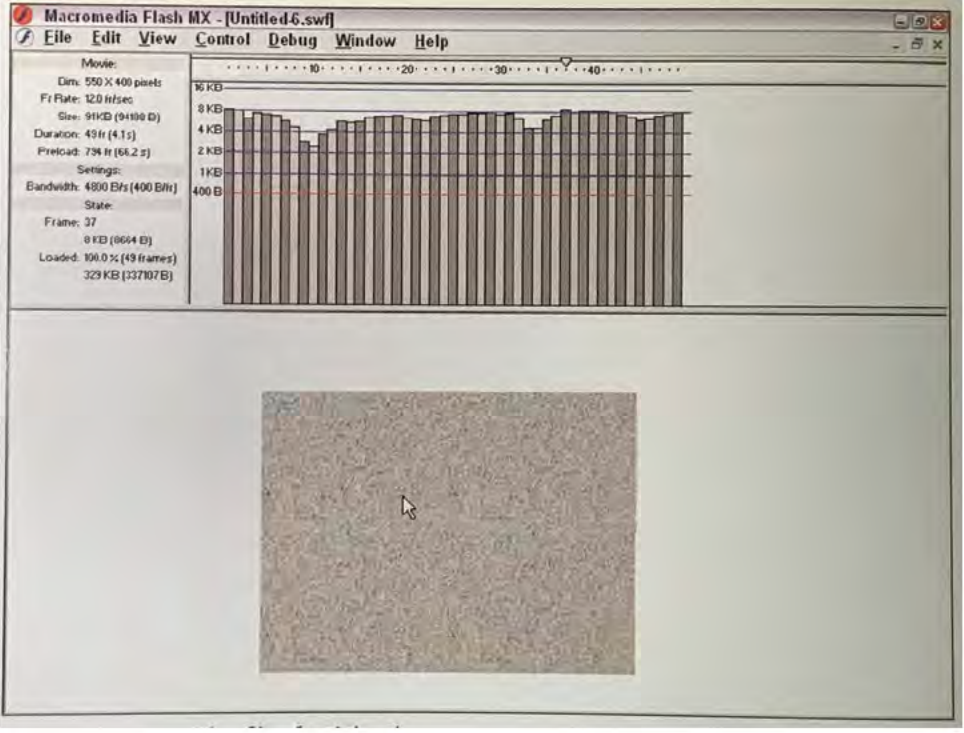
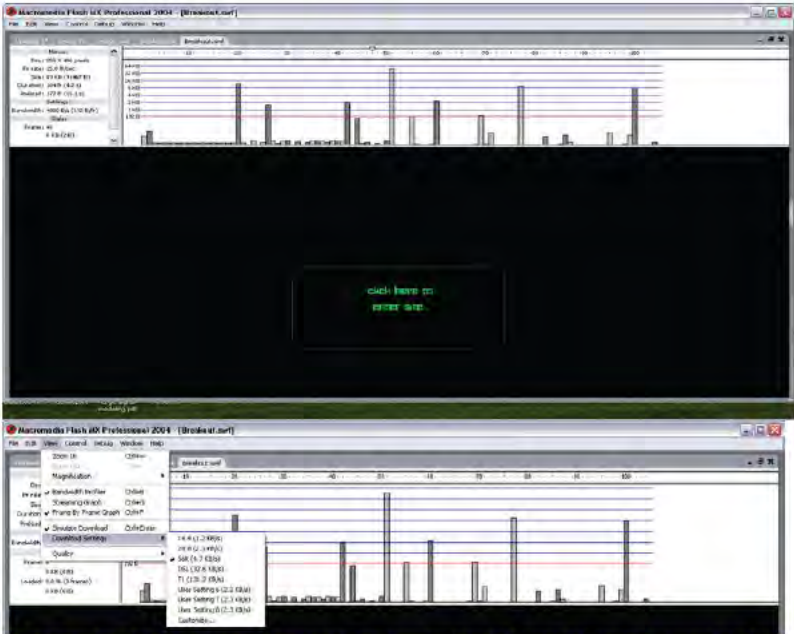| '678 Claim 1	Reference/Combination
	To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7]

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'678 Claim 1	Reference/Combination
	[David, p. 98]

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'678 Claim 1	Reference/Combination
	● 8.2 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

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'678 Claim 1	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 1	Reference/Combination
1[c] wherein the bandwidth availability is based at least in part on bandwidth data predetermined from interactions between one or more mobile devices and at least one operator network.	The Flash MX Professional 2004 system discloses this limitation. Bandwidth Profiler simulating a web connection and download at a speed of 28.8 kbps. Bandwidth Profiler simulating a web connection and download at a speed of 56 kbps. Screenshots above from the Flash MX Professional 2004 emulator show a plurality of operator network characteristics, including "Bandwidth" and the amount of time needed for "Preload" for snake.swf.

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'678 Claim 1	Reference/Combination
	Bandwidth Profiler simulation options. The Bandwidth Profiler's connection simulation is based at least in part on bandwidth data predetermined from interactions between one or more mobile devices and at least one operator network. For example, the Bandwidth Profiler in Flash MX Professional 2004 is a software testing interface for Flash applications for mobile devices and it simulates typical Internet performance (bandwidth availability) in testing a Flash application. See disclosures for claim limitation 1[b][2] (hereby incorporated by reference).

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Wapp Tech Limited Partnership et al. v. JPMorgan Chase Bank, N.A., No. 4:23-cv-1137 (E.D. Tex.)
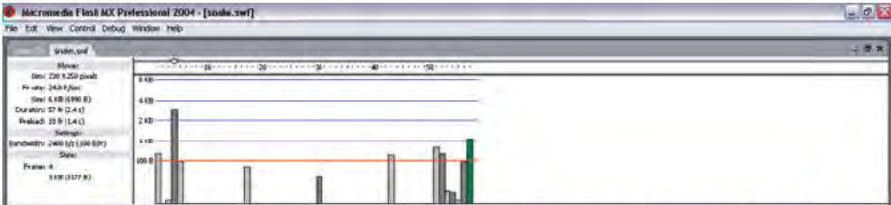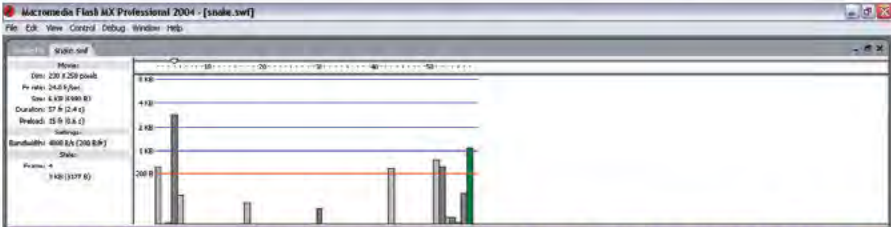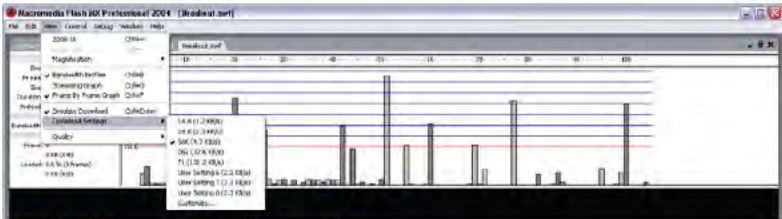
'678 Claim 1	Reference/Combination
	For example, the bandwidth speeds offered by the Bandwidth Profiler are in line with operator bandwidth availability at the time. Simulating typical Internet performance is based at least in part on bandwidth data predetermined from interactions between one or more mobile devices and at least one operator network. [*Flash MX 2004 Using Flash*, p. 38] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [*Flash MX 2004 Using Flash*, p. 38] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. [*Flash MX 2004 Using Flash*, p. 385] Bandwidth Selection template uses forms and components to present the selection interface. This interface lets users control how much content they receive and lets authors tailor their applications to a variety of connection speeds. After the user makes a speed selection, the media playback component is directed to play the specified video. [¶] The Select screen contains radio buttons that allow bandwidth selection. ActionScript to handle the selection of radio buttons is included within the Timeline of this screen. [¶] To change the option labels or the number of options that users is presented, you can add, remove, or edit the components on the Select form.

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'678 Claim 1	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 2	Reference/Combination
2[a] The system of claim 1, wherein the software is configured to enable a user to select from one or more connection simulations for testing how well mobile content performs on the mobile device.	The Flash MX Professional 2004 system discloses this limitation. Bandwidth Profiler simulating a web connection and download at a speed of 28.8 kbps. Bandwidth Profiler simulating a web connection and download at a speed of 56 kbps. Screenshots above from the Flash MX Professional 2004 emulator show a plurality of operator network characteristics, including "Bandwidth" and the amount of time needed for "Preload" for snake.swf. Bandwidth Profiler simulation options.

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'678 Claim 2	Reference/Combination
	For example, the Bandwidth Profiler in Flash MX Professional 2004 is a software testing interface for Flash applications, and the Bandwidth Profiler in Flash MX Professional 2004 simultaneously visually simulates operator network characteristics and displays a graph of the downloading performance of the Flash application. See disclosures for claim limitation 1[b][1] (hereby incorporated by reference). In addition, the Bandwidth Profiler enables the user to both select and customize the download speed to determine the streaming rate that is simulated, thereby enabling a user to select from multiple connection simulations for testing how well mobile content performs on the mobile device. [*Flash MX 2004 Using Flash*, p. 385] Bandwidth Selection template uses forms and components to present the selection interface. This interface lets users control how much content they receive and lets authors tailor their applications to a variety of connection speeds. After the user makes a speed selection, the media playback component is directed to play the specified video. [¶] The Select screen contains radio buttons that allow bandwidth selection. ActionScript to handle the selection of radio buttons is included within the Timeline of this screen. [¶] To change the option labels or the number of options that users is presented, you can add, remove, or edit the components on the Select form. [*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate

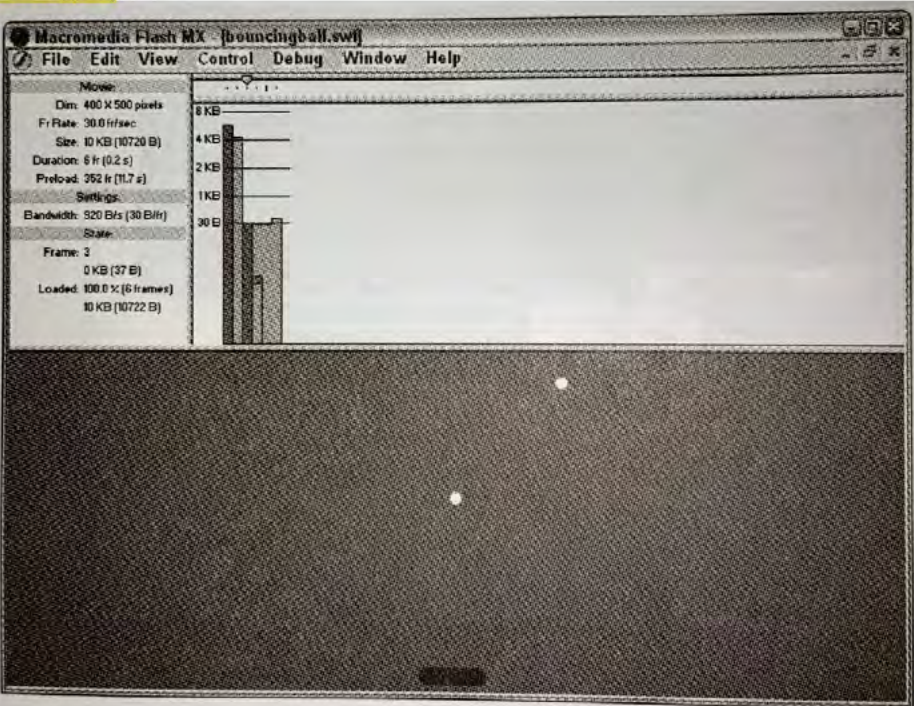*Wapp Tech Limited Partnership et al. v. JPMorgan Chase Bank, N.A.*, No. 4:23-cv-1137 (E.D. Tex.)

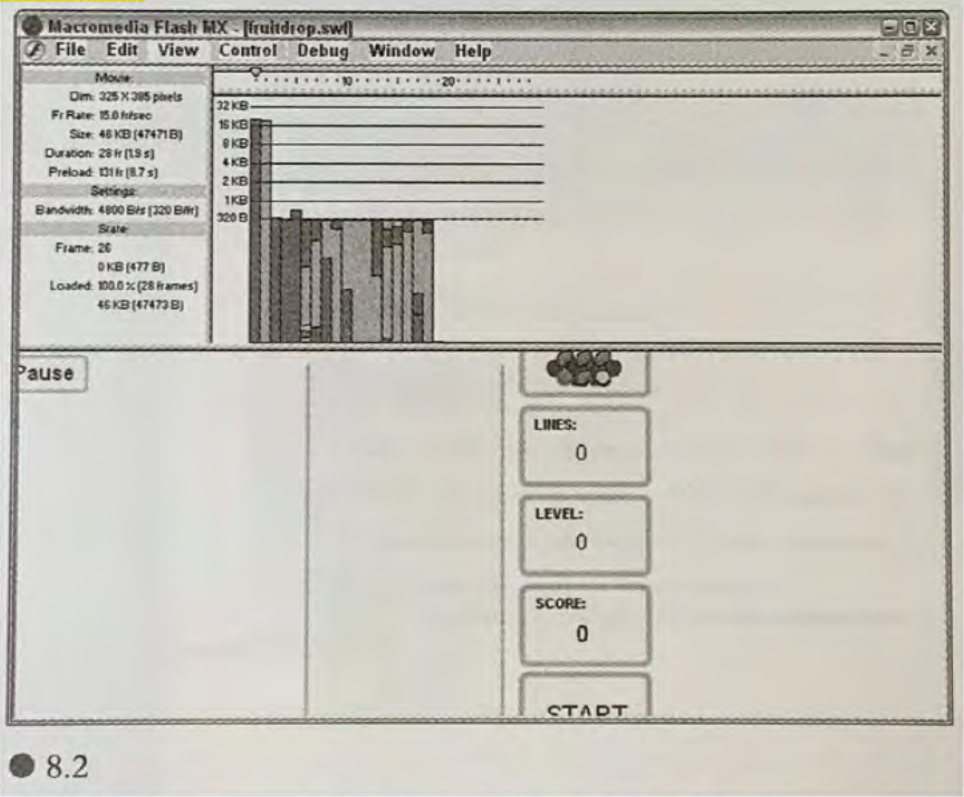| '678 Claim 2	Reference/Combination
	to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. [¶]
	When external SWF files, GIF and XML files, and variables are streamed into a player by using ActionScript calls such as loadMovie and getUrl, the data flows at the rate set for streaming. The stream rate for the main SWF file is reduced based on the reduction of bandwidth caused by the additional data requests. It's helpful to test your document at each speed you intend to support, and on each computer you intend to support. This helps you ensure that the document doesn't overburden the slowest connection and computer it is designed for. [¶]
	You can also generate a report of frames that are slowing playback, and then optimize or eliminate some of the content in those frames. See "Optimizing Flash documents" on page 36. [¶]
	To change the settings for the SWF file created using the Test Movie and Test Scene commands, use File > Publish Settings. See "Publishing Flash documents" on page 281. [¶]
	To test download performance: [¶] Do one of the following: [¶] Select Control > Test Scene or Control > Test Movie. [¶] If you test a scene or document, Flash publishes the current selection as a SWF file using the settings in the Publish Settings dialog box. (See "Publishing Flash documents" on page 281.) The SWF file opens in a new window and begins playing immediately. [¶] Select File > Open, and select a SWF file. [¶]
	Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [¶]
	When viewing the SWF file, select View > Bandwidth Profiler to display a graph of the downloading performance. [¶] The left side of the profiler displays information about the document, its settings, its state, and streams, if any are included in the document. [¶] The right section of the profiler shows the Timeline header and graph. In the graph, each bar represents an individual frame of the document. The size of the bar corresponds to that frame's size in bytes. The red line beneath the Timeline header indicates whether a given frame streams in real time with the current modem speed set in the Control menu. If a bar extends above the red line, the document must wait for that frame to load. [¶]

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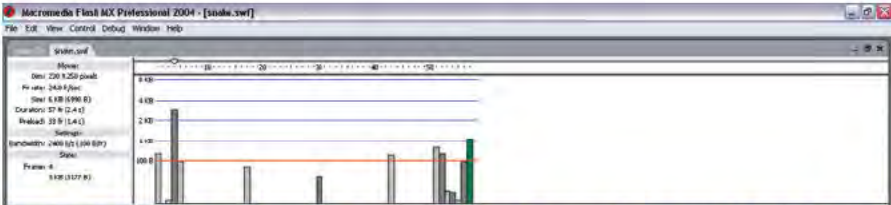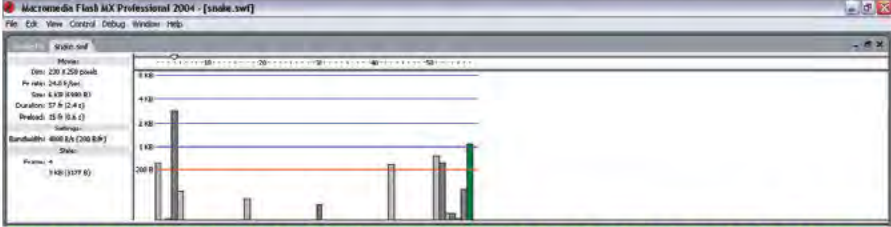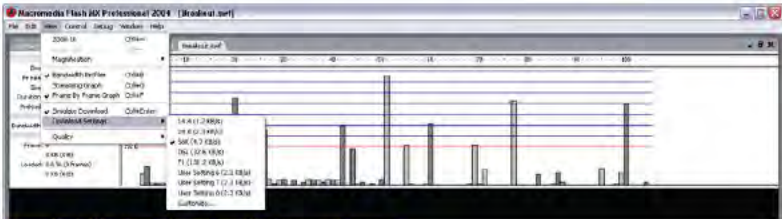| '678 Claim 2	Reference/Combination
	Select View > Simulate Download to turn streaming off or on. [¶] If you turn streaming off, the document starts over without simulating a web connection. [¶] Click a bar on the graph to display settings for the corresponding frame in the left window and stop the document. [¶] If necessary, adjust the view of the graph: [¶] Select View > Streaming Graph to show which frames cause pauses. This default view displays alternating light and dark gray blocks representing each frame. The side of each block indicates its relative byte size. The first frame stores a symbol's contents, so it is often larger than other frames. [¶] Select View > Frame by Frame Graph to display the size of each frame. This view helps you see which frames contribute to streaming delays. If any frame block extends above the red line in the graph, the Flash Player halts playback until the entire frame downloads. [¶] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶] To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶] Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal.

Wapp Tech Limited Partnership et al. v. JPMorgan Chase Bank, N.A., No. 4:23-cv-1137 (E.D. Tex.)
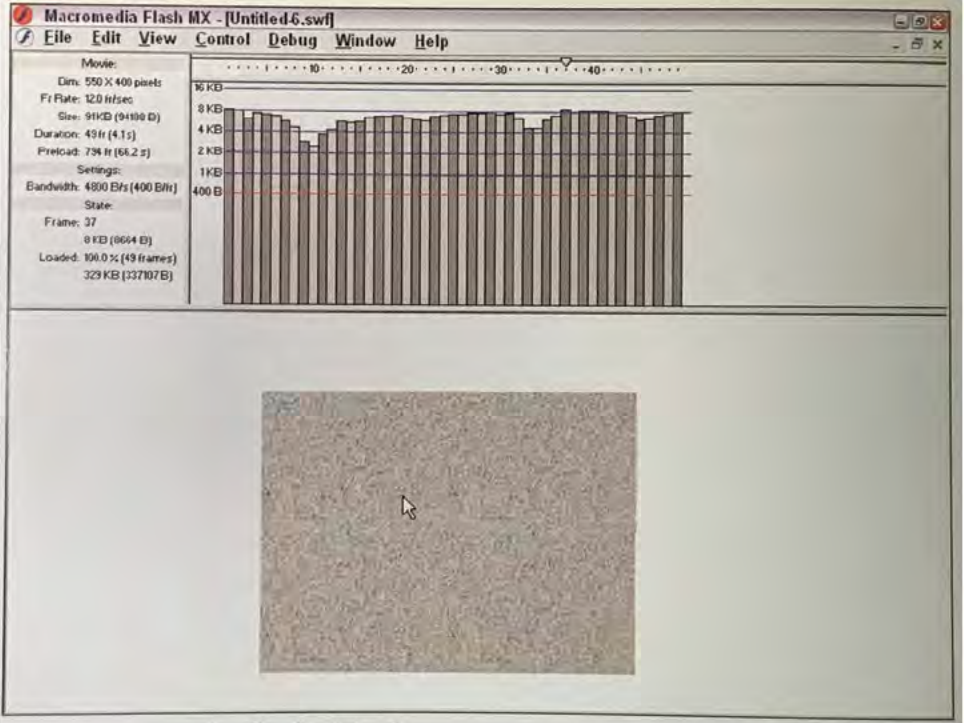
'678 Claim 2	Reference/Combination
	David discloses, via screenshots, the appearance of the Bandwidth Profiler. [David, p. 7] ● 1.6

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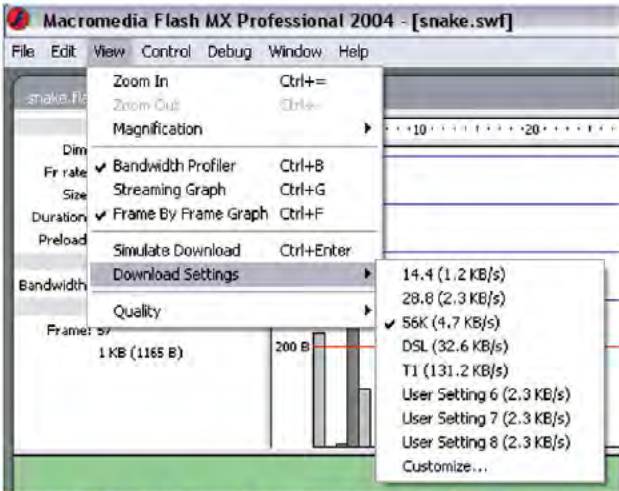
'678 Claim 2	Reference/Combination
	[David, p. 98] ● 8.2 [David, #18 of 32 unnumbered pages between pages numbered 192 and 193]

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'678 Claim 2	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 2	Reference/Combination

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'678 Claim 3	Reference/Combination
3[a] The system of claim 2, wherein the one or more connection simulations are configured to simulate wireless transmission of content to the mobile device based on the selected connection simulation.	The Flash MX Professional 2004 system discloses this limitation. Bandwidth Profiler simulating a web connection and download at a speed of 28.8 kbps. Bandwidth Profiler simulating a web connection and download at a speed of 56 kbps. Screenshots above from the Flash MX Professional 2004 emulator show a plurality of operator network characteristics, including "Bandwidth" and the amount of time needed for "Preload" for snake.swf. Bandwidth Profiler simulation options.

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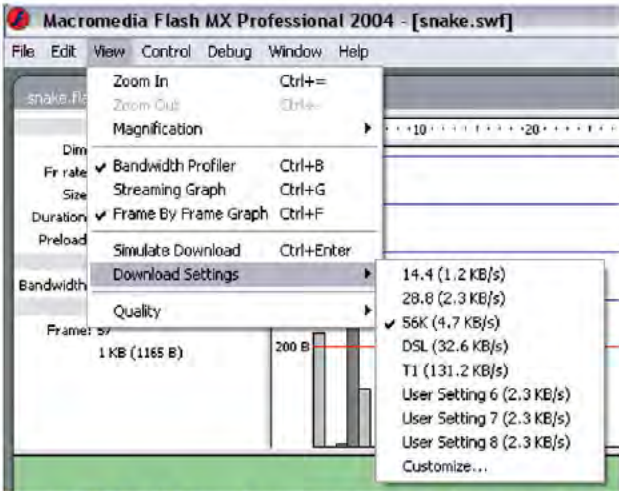| '678 Claim 3	Reference/Combination
	For example, the Bandwidth Profiler in Flash MX Professional 2004 is a software testing interface for Flash applications, and the Bandwidth Profiler in Flash MX Professional 2004 simultaneously visually simulates operator network characteristics and displays a graph of the downloading performance of the Flash application. See disclosures for claim limitation 1[b][1] (hereby incorporated by reference). In addition, the Bandwidth Profiler enables the user to both select and customize the download speed to determine the streaming rate that is simulated, thereby enabling a user to select from multiple connection simulations for testing how well mobile content performs on the mobile device. See disclosures for claim limitation 2[a] (hereby incorporated by reference). This simulated download simulates transmission of the Flash application (content) to the mobile device based on the selected bandwidth (connection simulation). In addition, the Bandwidth Profiler connection simulations the manual expressly and/or inherently discloses that the bandwidths available to choose are within range of wireless carrier networks' transmission speeds at the time. [*Flash MX 2004 Using Flash*, p. 38] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. [*Flash MX 2004 Using Flash*, p. 390] In addition, Flash files are compact, making them perfect for wireless carrier networks, where transfer rates range between 9.6 and 60 kilobytes per second (Kbps). Mobile devices, unlike desktop computers, have limited storage capability, so the small footprint of Flash is ideal. To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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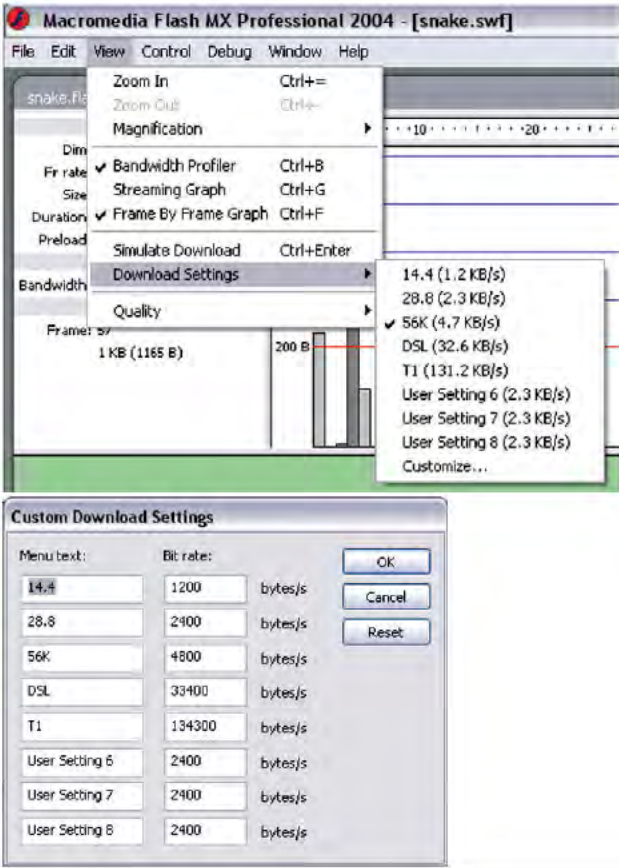
'678 Claim 3	Reference/Combination

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'678 Claim 4	Reference/Combination
4[a] The system of claim 2, wherein the connection simulation includes one or more profiles.	The Flash MX Professional 2004 system discloses this limitation. Bandwidth Profiler simulation options, including streaming rates (profiles). For example, the manual discloses that the Bandwidth Profiler connection simulation offers multiple download speeds (includes one or more profiles) to choose from. See disclosures for claim limitation 2[a] (hereby incorporated by reference). *[Flash MX 2004 Using Flash, p. 38]* Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize.

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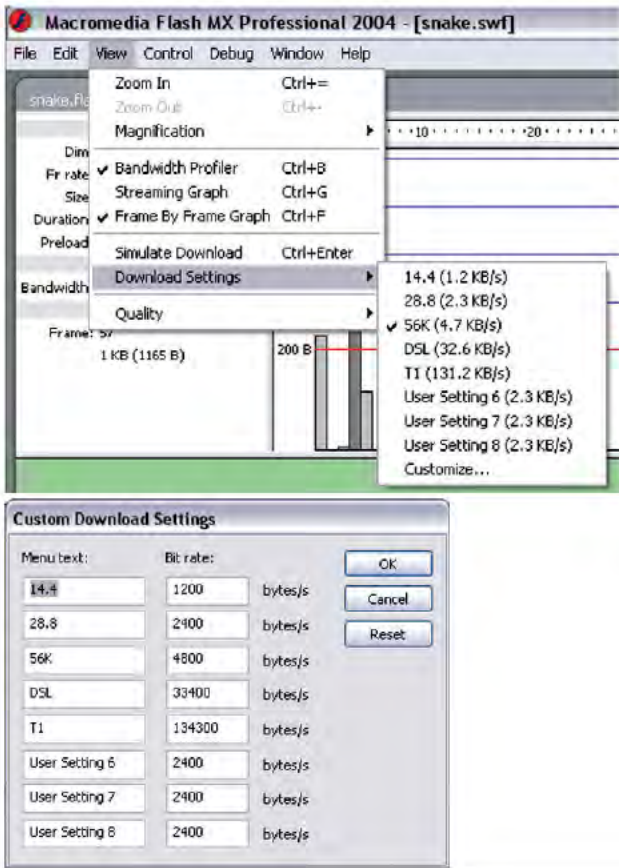| '678 Claim 4	Reference/Combination
	For example, Flash MX Professional 2004 enables inclusion of one or more publish profiles.
	[*Flash MX 2004 Using Flash*, pp. 295 – 296] You can create a publish profile that saves a configuration of publish settings. You can then export the publish profile for use in other documents, or for use by others. Conversely, you can import publish profiles for use in your document. […]
	Publish profiles, like default publish settings, are saved at the document rather than application level. To use a publish profile in another document, you export it, then import it into the other file. […]
	To modify a publish profile, you simply change the settings in the Publish Settings dialog box.
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 5	Reference/Combination
5[a] The system of claim 4, wherein the profiles include preset profiles.	The Flash MX Professional 2004 system discloses this limitation. Bandwidth Profiler simulation options, including preset streaming rates (profiles). For example, the manual discloses that the Bandwidth Profiler connection simulation offers multiple preset download speeds (includes preset profiles) to choose from. See disclosures for claim limitation 4[a] (hereby incorporated by reference). *[Flash MX 2004 Using Flash, p. 38]* Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize.

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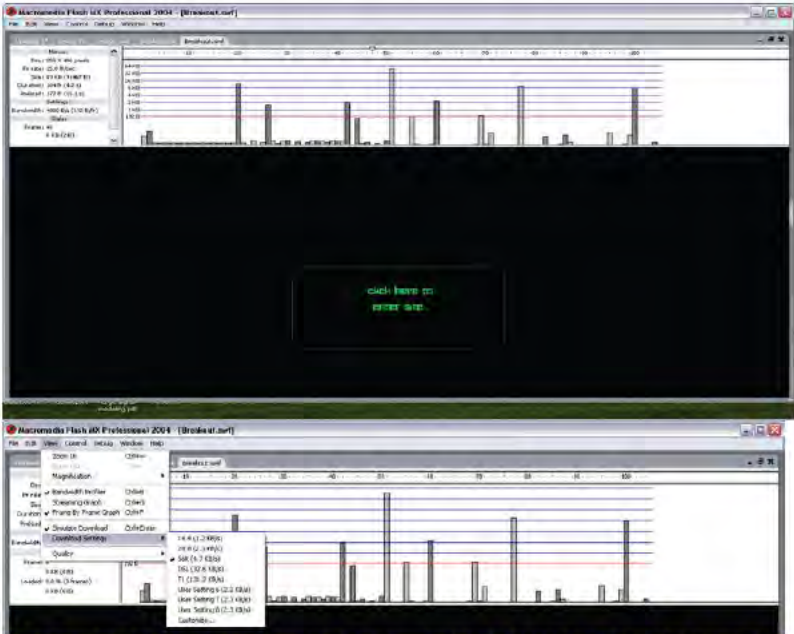| '678 Claim 5	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 6	Reference/Combination
6[a] The system of claim 4, wherein the profiles are configured to enable a user to manage the profiles.	The Flash MX Professional 2004 system discloses this limitation.

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'678 Claim 6	Reference/Combination
	Bandwidth Profiler simulation options, including a "Customize…" option that enables the user to manage the preset profiles.
	For example, the manual discloses that the Bandwidth Profiler allows the user to customize download speeds (manage the profiles). See disclosures for claim limitation 4[a] (hereby incorporated by reference).
	[*Flash MX 2004 Using Flash*, p. 38] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize.
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 7	Reference/Combination
7[a] The system of claim 4, wherein the profiles are configured to enable a user to create custom profiles.	The Flash MX Professional 2004 system discloses this limitation.

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'678 Claim 7	Reference/Combination
	Bandwidth Profiler simulation options, including a "Customize…" option that enables the user to create custom profiles. For example, the manual discloses that the Bandwidth Profiler allows the user to customize download speeds (create custom profiles). See disclosures for claim limitation 4[a] (hereby incorporated by reference). [*Flash MX 2004 Using Flash*, p. 38] Select View > Download Settings, and select a download speed to determine the streaming rate that Flash simulates: 14.4 Kbps, 28.8 Kbps, 56 Kbps, DSL, T1 or a User Setting. To enter your your own User Setting, select Customize. To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 9	Reference/Combination
9[a] The system of claim 2, wherein the one or more connection simulations are based on data of interaction with network operators in non-simulated environments.	The Flash MX Professional 2004 system discloses this limitation. The Bandwidth Profiler's connection simulation is based on data of interaction with network operators in non-simulated environments. For example, the Bandwidth Profiler simulates a network connection for testing how well mobile content performs on the mobile device. In addition, the Bandwidth Profiler enables the user to both select and customize the download speed to determine the streaming rate that is simulated, thereby enabling a user to

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'678 Claim 9	Reference/Combination
	select from multiple connection simulations for testing how well mobile content performs on the mobile device. See disclosures for claim limitation 2[a] (hereby incorporated by reference). Moreover, the Bandwidth Profiler reduces the connection simulation speed to reflect typical Internet performance (i.e., expressly and/or inherently based on data of interaction with network operations in non-simulated environments). [*Flash MX 2004 Using Flash*, pp. 38–39] The Flash Player attempts to meet the frame rate you set; the actual frame rate during playback can vary on different computers. If a document that is downloading reaches a particular frame before the frame's required data has downloaded, the document pauses until the data arrives. [¶] To view downloading performance graphically, you can use the Bandwidth Profiler, which shows how much data is sent for each frame according to the modem speed you specify. The Bandwidth Profiler is divided into two panes. The left pane shows information about the document, the download settings, the state, and streams, if any are included. The right pane shows information about individual frames in the document. [¶] In simulating the downloading speed, Flash uses estimates of typical Internet performance, not the exact modem speed. For example, if you choose to simulate a modem speed of 28.8 Kbps, Flash sets the actual rate to 2.3 Kbps to reflect typical Internet performance. The profiler also compensates for the added compression support for SWF files, which reduces the file size and improves streaming performance. To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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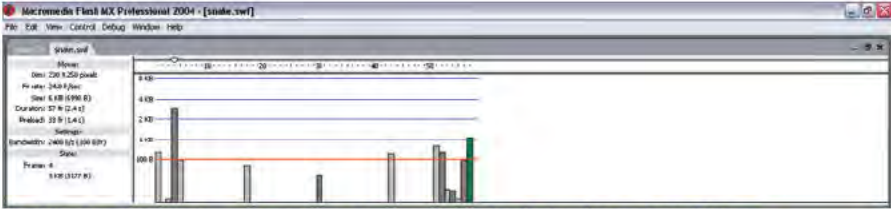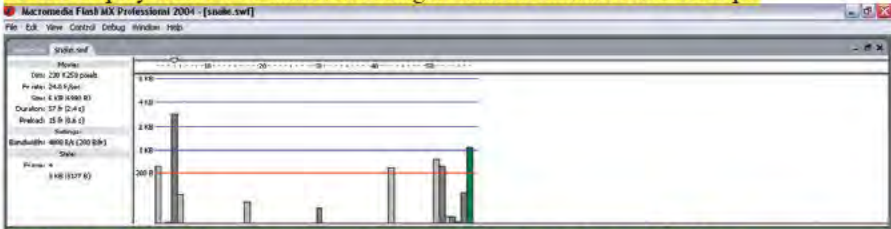| '678 Claim 12	Reference/Combination
12[a] The system of claim 1, wherein the software is configured to allow a user to simulate an incoming sms message.	The Flash MX Professional 2004 system discloses this limitation. For example, the Flash Lite 1.1 manual discloses an option to enable or disable SMS capabilities in the Flash Player (simulator and/or emulator). [*Flash MX Professional 2004 Flash Lite 1.1 Authoring Guidelines*, p. 26] The following variables are used to specify whether certain capabilities are available in Flash Lite, the device, the host application, or Flash Player. […] The _capSMS variable indicates whether Flash Lite can send SMS messages by using the GetURL() ActionScript command. If so, this variable is defined and has a value of 1; if not, this variable is undefined. For example, the manual discloses that Flash ActionScript supports sending messages between timelines (frame-based applications). [*Flash MX 2004 Using Flash*, p. 20] You can use ActionScript to send messages from one Timeline to another. The Timeline that contains the action is called the controlling Timeline, and the Timeline that receives the action is called the target Timeline. For example, there could be an action on the last frame of one Timeline that tells another Timeline to play. To refer to a target Timeline, you must use a target path, which indicates the location of a movie clip in the display list. For example, the Bandwidth Simulator allows a user to simulate an incoming network download. See disclosures for claim limitation 1[b][3] (hereby incorporated by reference).

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'678 Claim 12	Reference/Combination
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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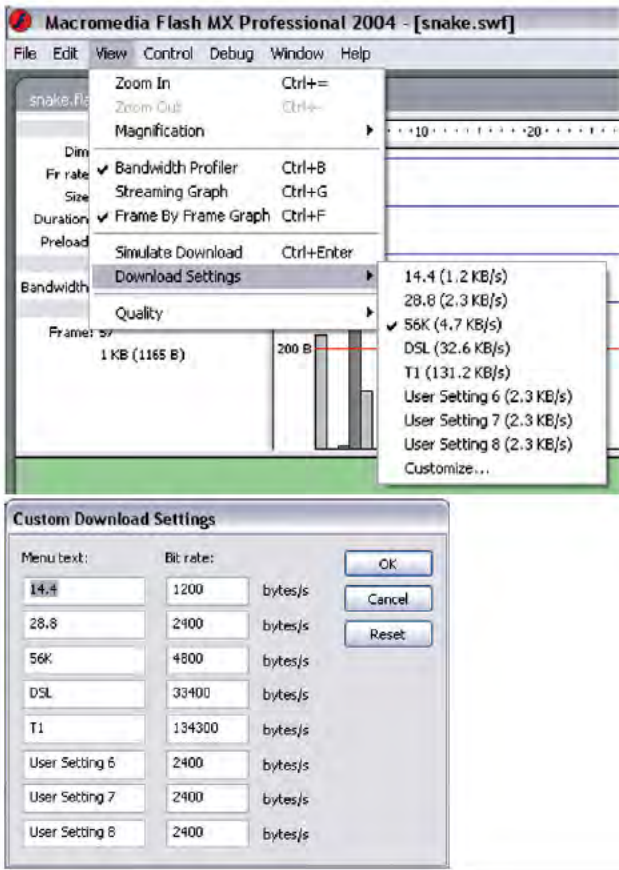| '678 Claim 13	Reference/Combination
13[a] The system of claim 1, wherein the software is configured to allow a user to simulate an incoming phone call.	The Flash MX Professional 2004 system discloses this limitation. For example, the NTT DoCoMo Flash Lite manual discloses the capability to initiate a phone call. [*Flash MX Professional 2004 Flash Lite Authoring Guidelines for the i-mode Service by NTT DoCoMo*, p. 8] i-mode browsers can directly run Flash Lite movies, or movies can be embedded in i-mode compatible HTML web pages. [¶] The i-mode compatible HTML specification is based on a subset of HTML 2.0, HTML 3.2, and HTML 4.0 specifications that DoCoMo extended with tags and attributes for special use on mobile phones. As an example, extensions include the tel URL protocol, which is used to link to a phone number and let users initiate a phone call. For example, the Bandwidth Simulator allows a user to simulate an incoming network download. See disclosures for claim limitation 1[b][3] (hereby incorporated by reference). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004 system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 21	Reference/Combination
21[a] The system of claim 1, wherein the software is further configured to display data to identify application performance.	The Flash MX Professional 2004 system discloses this limitation. For example, the Bandwidth Profiler displays bandwidth data graphically and includes features such as a bar chart and a red line that identify application performance. See disclosures for claim limitation 1[b][1] (hereby incorporated by reference). Profile display window of snake.swf using download simulator at 28.8 kbps Profile display window of snake.swf using download simulator at 56 kbps Screenshots above from the Flash MX Professional 2004 emulator show a plurality of operator network characteristics, including Bandwidth and the amount of time needed for Preload for snake.swf.

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'678 Claim 21	Reference/Combination
	Profile display window of snake.swf using download simulator at 28.8 kbps Profile display window of snake.swf using download simulator at 56 kbps (note distinction in value of red line). To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004

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'678 Claim 21	Reference/Combination
	system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.

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'678 Claim 22	Reference/Combination
22[a] The system of claim 21, wherein the user can manage the data.	The Flash MX Professional 2004 system discloses this limitation.

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'678 Claim 22	Reference/Combination
	The Flash MX Professional 2004 Bandwidth Profiler User Settings under Download Settings are configured to enable a user to manage the profiles.
	For example, the Bandwidth Profiler allows the user to select a download speed that affects the red line. See disclosures for claim limitation 21[a] (hereby incorporated by reference).
	As another example, the Bandwidth Profiler allows the user to generate a report listing data that identifies application performance.
	[*Flash MX 2004 Using Flash*, p. 39] Close the test window to return to the normal authoring environment. [¶] Once you've set up a test environment incorporating the Bandwidth Profiler, you can open any SWF file directly in test mode. The file opens in a Flash Player window, using the Bandwidth Profiler and other selected viewing options. [¶] For more information on debugging your documents, see "Writing and Debugging Scripts" in ActionScript Reference Guide Help. [¶]
	To generate a report listing the amount of data in the final Flash Player file: [¶] Select File > Publish Settings and click the Flash tab. [¶] Select Generate Size Report. [¶] Click Publish. [¶]
	Flash generates a text file with the extension .txt. (If the document file is myMovie.fla, the text file is myMovie Report.txt.) The report lists the size of each frame, shape, text, sound, video and ActionScript script by frame.
	To the extent this limitation is not explicitly disclosed by the Flash MX Professional 2004 system, it is inherent or would have been obvious to a POSA from the teachings of the Flash MX Professional 2004

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'678 Claim 22	Reference/Combination
	system, the knowledge of a POSA, and/or one or more of the references identified in JPMC's Invalidity Contentions.